

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
31 January 2002 (31.01.2002)

PCT

(10) International Publication Number
WO 02/09044 A2

(51) International Patent Classification⁷:

G07F

(71) Applicant (for all designated States except US): ETC MUSIC, INC. [US/US]; 153 Milk Street, Suite 710, Boston, MA 02109 (US).

(21) International Application Number: PCT/US01/22998

(72) Inventor; and

(22) International Filing Date: 20 July 2001 (20.07.2001)

(75) Inventor/Applicant (for US only): HARDIE, Mark, E. [US/US]; 21 Edge Street, Ipswich, MA 01938 (US).

(25) Filing Language:

English

(74) Agent: FEIGENBAUM, David, L.; Fish & Richardson P.C., 225 Franklin Street, Boston, MA 02110-2804 (US).

(26) Publication Language:

English

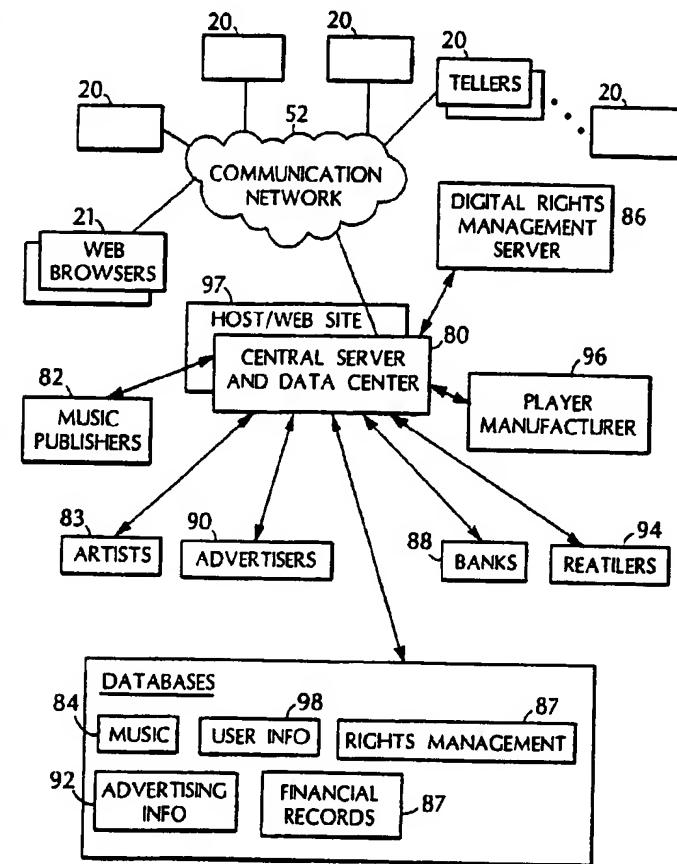
(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(30) Priority Data:

09/620,499 20 July 2000 (20.07.2000) US

[Continued on next page]

(54) Title: DISTRIBUTION OF DIGITAL CONTENT



(57) Abstract: At a self-service electronic device that is accessible to the public, information is received about an interest of a user with respect to a product that includes digital content. Information is also received identifying the user. The information about the user's interest and the information identifying the user is used to maintain an ongoing relationship with the user that includes a future commercial transaction involving digital content.

WO 02/09044 A2



(84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

DISTRIBUTION OF DIGITAL CONTENT

BACKGROUND

This invention relates to distribution of digital content.

Music, for example, has been distributed in many ways over the centuries,

5 including by live performance, on portable media such as wax disks, records, tapes, and CDs, and by electronic downloading to home computers and portable music players. CDs are often reproduced in large volume and distributed in prepackaged containers through retail music stores. Some stores also use machines to "burn" selected music into CDs ordered by customers in the store. The music to be included on such a custom CD is

10 provided by the music publisher, in some cases, by electronic transfer from a central location to the store.

SUMMARY OF THE INVENTION

Although the discussion below focuses on distribution of music, similar techniques could be used to distribute other digital content, including books and other

15 texts, images and graphics, video, non-musical audio, games, and executable software. One aim of the invention is to change the way people think about how they buy, store, and use music and other digital content. Typically people are accustomed to buying music on physical media (such as CDs) that are loaded into a player and rotated on a spindle under a laser reader for playback. The CDs are bought in stores or ordered by

20 telephone or on the World Wide Web. Once the CDs are bought, they are stored and protected from damage and carried along wherever the owner thinks he may want to listen to them.

The invention enables a person instead to think of his music collection as something that can be expanded (and is available to him) at almost any place and any

25 time without the need to carry sometimes large numbers of playable media such as CDs. Among other things, the invention allows a person who is walking down a street in a big city and thinking about wanting to hear a certain piece of music to be able to obtain and play the music without having to find a music store or make use of a computer to

download the music. Or if the piece of music is one that he already owns but which is not in his possession at the moment, he can get access to it and play it easily almost wherever he is.

In a sense, the invention does for music what automatic teller machines (ATMs) did for cash. Prior to the widespread placement of ATMs, people were wary of traveling any distance from home without a considerable amount of cash or travelers checks. With ATMs, people know that cash will be widely available to them at many locations in almost any city in the world and they are not concerned about traveling even large distances with little cash in hand. The invention will be particularly effective for people who are mobile and digitally-adept.

Another aim of the invention is, in some cases, to alter the way that producers and owners of digital content protect and distribute of the content and derive revenue from it. In a traditional model, the content is viewed as an economic good that must be protected by copyright or licensing and the copying and distribution of the work is seen as the event that should trigger revenue with respect to each copy made. The invention involves a modified model in which relationships between vendors and users and knowledge about the users also become a source of revenue generation. Although the digital content continues to provide a medium for the generation and maintenance of the relationships, under this model, the need to derive revenue from every transaction involving a copy may be reduced.

In the invention, by identifying himself and expressing an interest that relates to particular items or classes of digital content, the user initiates a relationship with producers, owners, and vendors of digital content that enables the generation of revenue. The revenue may be generated immediately by delivery of a particular song, for example, or at a different place and time. The relationship could last for many years.

Thus, in general, in one aspect, the invention features a method that includes: (i) at a self-service electronic device that is accessible to the public; receiving (a) information about an interest of a user with respect to a product that includes digital content and (b) information identifying the user, and (ii) using the information about the

user's interest and the information identifying the user to maintain an ongoing relationship with the user that includes a future commercial transaction involving digital content.

In general, in another aspect, the invention features a method that includes: (i) at a self-service electronic device that is accessible to the public, enabling a user to conduct a transaction in which digital content is received, and (ii) sending the digital content to a specified recipient as part of an electronic message.

In general, in another aspect, the invention features a method that includes: (i) at a self-service electronic device that is accessible to the public, delivering digital content as part of a transaction with a user of the electronic device, (ii) embedding in the digital content information uniquely identifying the transaction, and (iii) identifying unauthorized copies of the digital content that are the subject of commercial transactions on an electronic network.

In general, in another aspect, the invention features a method that includes (i) at a self-service electronic device that is accessible to the public, enabling a user to initiate a relationship with a supplier of digital content, (ii) enabling the user to acknowledge the relationship electronically through a network interaction, and (iii) automatically providing an interface custom-tailored to the user's interests for later network interaction as part of the relationship.

In general, in another aspect, the invention features a method that includes (i) providing to a user an electronically readable token that identifies the user and an affiliation of the user with a commercial entity, (ii) at a self-service electronic device that is accessible to the public, electronically reading the token in connection with a commercial transaction involving digital content delivered at the electronic device, and (iii) providing the commercial entity with information associated with the commercial transaction.

In general, in another aspect, the invention features (i) providing to a user a token that can be read wirelessly from a self-service electronic device that is accessible to the public, the token containing information about the user, the token also containing

information associated with use of the electronic device by the user, and (ii) at the electronic device, reading the token and controlling the user's use of the electronic device based on the information contained on the token.

In general, in another aspect, the invention features a method that includes (i) in
5 connection with a public performance, distributing to users attending the performance tokens that include electronically readable information, and (ii) at a self-service electronic device that is accessible to the public in the vicinity of the performance, receiving the tokens and dispensing to the users digital content associated with the performance.

In general, in another aspect, the invention features apparatus that includes (i) a
10 housing adapted for mounting in a publicly accessible location, (ii) a processor in the housing configured to provide a user interface that enables a user to select digital content to be received, (iii) a communication port adapted to connect the processor to a communications network to carry information about the delivery of the digital content between the housing and a central server, and (iv) a downloading port connected to the
15 processor and adapted to couple to a hand-held storage device and to enable the selected digital content to be downloaded to the hand-held storage device, the user interface being customized to the user's preferences based in part on information stored in the central server.

In another aspect, the invention features a method of distributing digital content
20 that includes (i) accepting a hand-held device inserted into a downloading port by a user; (ii) enabling a user to select digital content; and (iii) downloading the digital content based on the user's selection onto the hand-held device from which the digital content can be performed.

Other advantages and features will become apparent from the following
25 description and from the claims.

DETAILED DESCRIPTION

Figures 1 through 5 illustrate aspects of implementations of the invention. As shown in figure 1, in some examples of the invention, publicly accessible machines (called MusicTellerstm or simply tellers) 10 are placed at many public and/or private

locations 12 throughout many cities 14 in the world. At any of the tellers, anyone can browse for and buy music. The locations 12 can include, for example, all of the kinds of locations that accommodate ATMs, such as along sidewalks, in airports, malls, amusement parks, and other public spaces, and in stores. The locations could also be
5 located in private places such as in private clubs, night clubs, office buildings, gas stations, drug stores, and hospitals. The tellers dispense both promotional and paid-for music products. The tellers automate what might otherwise be conventional retail store transactions, enabling direct distribution to a mobile user. They can be configured for in-store operation to complement existing store products and services while reducing
10 inventory. The tellers are easy to use, provide fast transactions, and are conveniently accessible.

The teller's user interface is optimized for promoting and selling music. The teller is connected to a high-speed network and user fast data ports, like Universal Serial Bus, to provide the fastest possible transfer of multi-megabyte data.

15 As shown in figure 2, in some implementations, each teller 20, like an ATM, can hang on a wall 22 (or could rest on a table or counter or be freestanding) and includes a touch-sensitive monitor 24, a credit card port 28, and a download port 30 that can couple to a communication port of a music player 32 or directly to a memory chip (such as a compact flash card), not shown. The teller could, but need not, also include a keyboard
20 26. Speakers 34 can be used to play music either for the purpose of attracting users to the machine or to enable the user to listen to segments of music that he may be interested in buying. A microphone, not shown, can receive speech from a user, which may then be used to activate the teller or control the interface.

As shown in figure 3, the machine 20 internally contains a microprocessor 40 that
25 executes an operating system and application software 44 stored in a memory 42. Memory 42 also stores data that is being processed during the execution of the application software 44. Disk drives or other storage 46 can be used to store software and data. A communication port/network interface 48 is coupled through a communication channel 50 (a telephone line) to a communication network 52 (for example, a privately

controlled secure network like the one used for ATMs). The interface 48, channel 50, and network 52 carry music that is to be performed for or delivered to the buyer, advertising content, and administrative data that enables the system to identify and authenticate the user, track transactions, consummate the financial transaction, and manage the user

5 interface represented by the display, keyboard, credit card reader, and speakers.

One or more system buses connect components for internal communication in a typical fashion.

In one mode of operation, the music selected by the user is delivered immediately, and electronically to a digital music player (e.g., an MP3 player) or a storage medium 10 (such as small memory chip) that the buyer can then carry away. Payment can be made by credit card through port 28. In other implementations, payment may be made through debit cards, periodic account billing, and other techniques.

In another mode of operation, the selected music can be delivered by electronic message to the user's email address (via the communication channel 50 and network 52) 15 or can be "side loaded" into a storage "locker" 53 that is located elsewhere on the network 52 and is assigned to the user for later access from any web browser or teller. All music purchased by registered members (explained below) are stored in their personal lockers whether or not they are immediately downloaded at the teller. If a registered member does not have a player handy, he may choose the "side load" feature and skip the 20 download process altogether.

As shown in figure 4, many tellers would be connected through the network 52 to a central server and data center 80. Although only a few machines 20 and one central server are shown in figure 4, many thousands of machines could be connected to a distributed set of servers or to independent servers much as for the network of ATMs. 25 The network could operate as an industry-owned "utility" in the form of a high-capacity virtual private network carrying music from central data repositories to individual tellers. Moreover, central storage facilities could form service bureau relationships between the network association and data center service providers.

The participants in the network could include brick and mortar retailers 94.

Tellers can be deployed both inside and outside brick and mortar retail outlets. In this example, a teller is simply a node on a network, and the interface of the teller can be controlled to display whatever content, promotion, or product is desired at that location.

5 As retailers adapt floor plans to accommodate digital content delivery, a teller in the jazz section could have a different interface than tellers in the classical or rock sections. Tellers outside a store can promote in-store merchandise giveaways or be physically branded to promote the store itself.

10 The tellers provide music publishers 82 and artists 83 with a virtual brick and mortar retail presence that implies an ability to sell, promote, or give away music to mobile users while they are shopping, for example, in the mall.

15 The term virtual brick and mortar is used because each teller can be custom configured on the network to serve a publisher (e.g., a label or a record company) or a promotion for a particular artist. For example, if there are ten tellers in a mall, four of them could be isolated for a specific on-screen promotion or an exclusive one-day-only music download.

20 Digital content delivery replaces the need for square footage to warehouse large numbers of specific physical products such as CDs. The teller's virtual brick and mortar feature provides a point of sale with all the necessary information to conduct the transaction, as well as a product delivery capability.

Web retailers 94 have no physical world presence beyond the browsers connected to the Internet. The tellers can provide virtual brick and mortar outlets for Web stores like Amazon. The same on-line promotions that greet music shoppers on-line in their den can also greet them off-line in the food court at the mall.

25 In the example shown in figure 4, the central server would have links to a variety of other parties and facilities that would jointly participate in the system. The various parties would each have incentives for participating in the consortium and an open, non-proprietary approach could be taken to participation.

A music publisher 82, for example, would receive a revenue stream as a percentage of the amounts paid by users at the tellers to receive music offered by the publisher. Digital masters of the music could be downloaded in advance to the central server for storage in a music database 84. The central server would perform needed administrative functions to index the music and prepare for downloading to the MusicTellers as needed.

In some examples, an independent digital rights management server 86 could be invoked by the central server as needed to assure the music publisher that the downloaded music would be protected and that agreed royalty payments would be properly accounted for and paid. Rights management data used by the central server 80 would be stored in a rights management database 87.

Banks or other financial institutions 88 could be parties to the consortium for the purpose of handling the credit card or other financial transactions associated with the distribution of the music. Accounting information associated with user fees, charges for downloaded music, royalty payments to the publishers, payments from advertisers, and other data would be stored in a financial records database 89 accessible to the central server.

Advertisers 90 or their agents could be parties to the consortium for the purpose of providing advertising material to be displayed on the monitors at the MusicTellers. Advertising content would be downloaded for storage in an advertising information database 92 for later delivery to the MusicTellers in accordance with a marketing or promotion schedule.

Retailers and player manufacturers 96 could be lessees of tellers, sharing in revenues from transactions and sharing a vested interest in the success of the system. Retailers could get a straight percentage cut of each transaction, whether or not they lease or control the teller, because it sits in their retail space. Both retailers and player manufacturers are interested in the aggregate information garnered from the network.

Users of the MusicTellers may or may not be members of an organization 97 that represents the host of the server. Members register with the organization and information

about them is stored in a user information database 98 for use in authenticating their identity when they use the MusicTellers. The members could register through a website from a home computer or directly at any of the MusicTellers. The database 98 also could hold a variety of information about users who are members or not members. The 5 information could be analyzed and repackaged for sale as marketing information that could be useful to advertisers, music publishers, and other parties.

The host organization 97 operates a web site that is accessible from a web browser-based device anywhere in the world. Members of the organization register at the web site and use the web site to personalize their experience at the site and at tellers 10 connected to the central server. In addition, the web site provides other functions and features to round out the musical experience offered to users at the tellers. The features include more extensive content searching with song samples; expanded digital content offering; ability to purchase hardware and players; and inclusion of editorial content and reviews and news. Music held in the member's locker could be audio streamed to the user 15 by the web site host or by a third party. Locker organization and maintenance could be managed through the website. The user could pre-compile or pre-purchase music titles for future download. Content could be downloaded to the local computer for later performance.

Users would be able to custom tailor the interface that appears on MusicTellers 20 through a website operated by the central server and accessible either from the MusicTellers or from a computer through the Internet. The customization would be stored for a user and available to him at any MusicTeller at any time. MusicTeller personalization capability includes the ability to select language preferences, a feature that especially benefits customers using MusicTeller s outside their home country 25 Returning to the teller itself, when a user browses on the MusicTeller and identifies an item of music that he wishes to have, the MusicTeller determines whether the contents requested by the user are available at local storage device 46 or not. If so, the microprocessor 40 fetches the contents from storage device 46 and saves it onto the player 32. If not, microprocessor 40 makes a request to central server 80 and obtains the

requested content via communications network 52 and network interface 48 from central server 40.

Referring to figure 5, during operation by a user, the MusicTeller performs as a state machine having four different states: presentation state, general use state, login 5 state, and subscription state.

When the MusicTeller is powered on or has been inactive for a pre-determined time, it enters the presentation state. In the presentation state, the MusicTeller performs auto-play in which a set of music, video, news, and sales promotions are played through speakers 34 and displayed on the screen in rotation (300). The MusicTeller also displays 10 a graphic button on the screen inviting users to activate the MusicTeller. The MusicTeller can be activated via the touch screen display 24 or the card swipe. The teller could also be voice activated. During auto-play, the MusicTeller monitors whether a user has activated the teller (310). If not, the teller stays in the presentation state.

When a user activates the teller, the teller enters the general use state. In the general use 15 state, the teller prompts the user to select among a number of options including taking a teller tour, browsing music, browsing other products and services, or requesting primary services (320). Teller tour briefs the user on the features and usage of digital contents teller (330). Browsing music allows the user to access freely available digital music, other categories of available audio products, and promotions and advertisement (340).

20 Browsing other products or services allows the user to access other freely available products and categories of other products and services (350). Other products include video clips, electronic books, and software. The teller also displays a volume controller, which allows the audio volume at speakers 34 to be increased or decreased by the user.

When the user chooses to request primary services, the teller enters the login 25 state. In the login state, the teller provides two options (360). One allows a non-member user to create a new account (370). The other allows a member or subscriber to login. The login can be accomplished by touching the touch sensitive screen, typing on a keyboard, or swiping a member card. Interaction with the teller can be provided in other ways including speech recognition.

Once a subscriber chooses to login, or a new account has been completed and accepted, the teller enters the subscription state. In the subscription state, the teller presents a personalized interface with the following customizable options (380): user preferences, account history, recommendations, browse and buy, upload and download, 5 community/reviews, and entertainment news.

User preferences allow a subscriber to customize his or her personal user interface (390). Account history allows a subscriber to review all the transactions he or she has executed on-line or off-line, including detailed items, quantities, and billing information (400). Recommendations describe recommended new releases of music, books, software, 10 other new products, or new services (410). A recommendation is determined based on an analysis of each subscriber's account history by the central server 40. Sophisticated analysis of subscriber's transactions are performed to predict a subscriber's product preferences, purchasing habits, and buying power.

Browse and buy provides a convenient venue in which the most popular products 15 are listed alphabetically. Search engines are equipped for a subscriber to search for products of interest (420). A subscriber can also preview or pre-listen to video, books, or music as he or she browses through the contents category. Once a subscriber determines the items to purchase, he or she could choose to download the items to a hand-held device 32 inserted to the port 30 of the teller. The subscriber could also choose to 20 sideload the selected items to his or her account by having an email to himself or herself attaching the selected items (430). Community/reviews provide comments about products or services by experienced users or other subscribers (440). Entertainment news provides latest news or development about products or services (450).

Most music items are stored in the central server and distributed on-demand. 25 However, popular music items can be cached in the local storage device 46. Microprocessor 40 determines the most popular music items based on all transactions within a period of time and caches them. Caching reduces traffic on the backbone of communications network 52.

Several examples will serve to illustrate the ways in which a user can take advantage of the features of the system.

In one example, a consumer A purchases a new digital music player (DMP) from Best Buy or Circuit City. Shrink-wrapped onto the box is a plastic card with a magnetic strip, similar to a long distance calling card. The card contains a serial number and offers the new DMP owner free music at a nearby MusicTeller. Consumer A steps up to the MusicTeller, swipes the card, and is welcomed with a selection of music products. The selection includes free promotional compilations in four genres, a free Billboard Top 100 title if the consumer will provide identity information (e.g., a credit card number), or an entry into a concert ticket giveaway for completing a simple 'Yes or No' survey.

This example illustrates how the sale of devices and music purchases can be tied together, with valuable information derived from the combined effort. The example also illustrates how the development of the relationship with the consumer provides value even though the digital content itself is given away.

In another example, a consumer B already owns a DMP. On recent visits to a MusicTeller, he selects a title from one of the Top 10 lists displayed, and accepts a free five-song promotion title. After seeing the exit menu ad, the consumer visits MusicTeller.com to register and create his own personalized screen. Consumer B decides that whenever he visits a MusicTeller, he'd like to see only top ten lists from RollingStone, Spin and VIBE. Also, he'd like to be informed of any new releases from James Brown or Isaac Hayes, be it re-mastered classics, previously unreleased tracks, other artists' covers, or soundtracks where the artists' songs are included. Consumer B is also willing to pay the \$4 ticket surcharge to always receive digital bootlegs that are available immediately after any concert at any MusicTeller. Finally, he wants access to his virtual music library online, and has given K-tel permission to review his entire catalog and recommend thematic compilation titles that could legitimately be resold as his own brand of mix compilations (tapes) for holidays or occasions.

The amount of information now known about consumer B will support long-term advertising and promotions that are finely targeted to the preferences of this one consumer. The mix-tape reseller option creates an affiliate relationship whereby one consumer can bring other consumers into the member base, tap their music likes and dislikes, and generate revenue around services.

In a third example, a consumer C gets into her rental car for a 90-minute drive to a client's office. She is unfamiliar with the local radio stations and doesn't have any cassettes or CDs with her to play in the car's in-dash audio player. Before getting onto the highway, Consumer C stops at a Mobil gas station and goes into the On The Run convenience store. Inside, she walks up to the Mobil-branded MusicTeller, waves her Speed Pass, and is greeted personally. Resting her wireless Rio 750 (DMP) on the built-in shelf, she keys in the length of her trip and her genre preferences. In seconds, the MusicTeller presents five compilations, each 90 minutes in length. Selecting two of the offered titles, her Mobil account is charged \$5.95 for the 'Symphonies for a Sunday Drive' title, and \$7.95 for the more current 'Divas – Live In Central Park' selection. With enough music for the round trip, consumer C returns to her car, connects the Rio to the car stereo with an adapter cable, and motors away.

Consumer C is a busy professional, willing to pay for the convenience of getting music tailored to her environment. She has little concern for what music exists on a rack in her apartment – the fact that she can get music that she wants to hear and not have to pack CDs in her already stuffed briefcase is worth the few dollars paid at Mobil. Moreover, Mobil records indicate that she makes frequent day-trips to a nearby ski resort. As a result, she periodically receives opt-in email promoting new music releases that can be enjoyed on the ride to and from the resort or while snowboarding.

Other implementations are within the scope of the following claims.

For example, there can be more than one central server 40, each serving requests from tellers located within a certain geographic region. Other content besides music can be distributed in the same way and with similar benefits.

The delivery of digital content from the teller could be done wirelessly, rather than through cables or mechanical ports, for example, by using the wireless short distance or "proximity" connectivity provided by the Bluetooth standard.

A wide variety of devices could be used to receive and perform the digital content, including personal digital assistants (PDAs, such as Palm Pilots or Handspring Visors) and cell phones and other devices that include, as a secondary capability, the ability to perform digital content.

Long distance wireless communication could also be used in implementations of the invention. For example, digital content could be routed through a Wireless Application Protocol (WAP) type web site over a wireless network to a user's cellular phone. A "land-based" web site could be tied in with the WAP web site to manage the user's experience and the extension to a wireless web site to service them as well. In implementations that provide cards or tokens to users, the cards need not have conventional magnetic stripes, but could be non-magnetic swipe payment cards (e.g., European-type embedded chip smart cards).

More generally, a variety of financial relationship instruments (such as those that are subscription-based or account-based) could be used to make payment from the account at the tellers instead of having to make a spot payment. For example, a user of a GSM cellular phone could make secure transactions (secured through the phone's SIM card/password) at the tellers with the transaction being charged to the user's monthly phone bill. Charges could be paid by a variety of techniques, including credit card, debit card, and periodic account billing.

Affinity and co-branding relationships could be established for promotional or membership cards that could over time evolve to take on an account type financial relationship extension.

In addition to the delivery of content, activation of the teller from the presentation state could occur in other ways, including wirelessly from cards or devices that are presented in proximity to the teller, including devices that use the Bluetooth or similar wireless protocols in which the user has been pre-identified in some manner. Other

mechanisms could include cell phones, voice activation, or the type of activation used by the Speed Pass offered by Mobil Oil Corporation.

The volume at which music is played at the teller could be controlled by the user during interaction with the teller, or could be fixed under the control of a retailer, or could 5 fall within a limited range of control by the user.

The teller need not have speakers or arrangements can be made to limit the length of time during which music is played, to prevent the tellers from becoming mere listening stations.

The teller could be arranged to print a receipt or not to print a receipt for 10 transactions consummated at the teller. A user could arrange for a receipt to be e-mailed. The web site could maintain and make accessible to the user a running record of purchases in an account history.

Any purchased digital content can remain stored in the central system indefinitely for use by the user who purchased it.

15 Mechanisms can be provided to limit the amount of browsing and searching at the teller and instead steer the majority of time consuming browsing/surfing/exploring to the web site. This assures short transaction times at the teller.

CLAIMS

1. A method including
 - at a self-service electronic device that is accessible to the public, receiving (a) information about an interest of a user with respect to a product that includes digital content and (b) information identifying the user, and
 - using the information about the user's interest and the information identifying the user to maintain an ongoing relationship with the user that includes a future commercial transaction involving digital content.
2. The method of claim 1 in which the self-service electronic device comprises a teller.
3. The method of claim 1 in which the information about an interest of a user includes an order to buy a copy of the digital content.
4. The method of claim 1 in which the information about an interest of the user includes an indication of an interest in a category of digital content.
5. The method of claim 1 in which the digital content comprises at least one of music, books and other texts, images and graphics, video, non-musical audio, games, and executable software.
6. The method of claim 1 in which the information identifying the user includes information sufficient to enable the user to be charged for the digital content.
7. The method of claim 1 in which maintaining an ongoing relationship with the user includes storing the information about the user's interest and the information identifying the user in a location remote from the self-service electronic device.
8. The method of claim 1 in which the future commercial transaction includes a sale of digital content to the user.
9. The method of claim 1 in which the future commercial transaction includes selling digital content to someone other than the user.
10. A method comprising
 - at a self-service electronic device that is accessible to the public, enabling a user to identify digital content, and

in response to a request from the user, identifying a remote computer facility at which the digital content can be stored for access by the user.

11. The method of claim 10 in which the user is enabled to manage and obtain access to the digital content stored on the remote computer facility.

5 12. A method comprising

at a self-service electronic device that is accessible to the public, enabling a user to conduct a transaction in which digital content is received, and

sending the digital content to a specified recipient as part of an electronic message.

10 13. The method of claim 12 in which the transaction comprises the user buying the digital content.

14. The method of claim 12 in which the transaction comprises the user receiving the digital content as part of a promotional offer.

15. The method of claim 12 in which the digital content comprises music.

16. The method of claim 12 in which the recipient is the user.

17. The method of claim 12 in which the recipient is not the user.

18. A method comprising

at a self-service electronic device that is accessible to the public, delivering digital content as part of a transaction with a user of the electronic device,

20 embedding in the digital content information uniquely identifying the transaction, identifying unauthorized copies of the digital content that are the subject of commercial transactions on an electronic network.

19. The method of claim 18 in which the information uniquely identifying the transaction includes at least one of the identity of the user, the identity of the digital content, the identity of the electronic device, or the date and time of the transaction.

25 20. A method comprising

at a self-service electronic device that is accessible to the public, enabling a user to initiate a relationship with a supplier of digital content,

enabling the user to acknowledge the relationship electronically through a network interaction, and

automatically providing an interface custom-tailored to the user's interests for later network interaction as part of the relationship.

- 5 21. The method of claim 20 in which the user initiates the relationship by interaction with the self-service electronic device in a manner that identifies the user.
22. The method of claim 20 in which the user initiates the relationship by conducting a transaction at the self-service electronic device involving selected digital content.
23. The method of claim 20 in which the user acknowledges the relationship by interaction with the supplier on a web site.
- 10 24. The method of claim 20 in which the interface is provided on the World Wide Web and on the electronic device that is publicly accessible.
25. The method of claim 20 in which the interface reflects interests of the user with respect to the digital content.
- 15 26. The method of claim 20 in which the user interface is custom tailored by interaction with a web site.
27. A method comprising
 - providing to a user an electronically readable token that identifies the user and an affiliation of the user with a commercial entity,
 - 20 at a self-service electronic device that is accessible to the public, electronically reading the token in connection with a commercial transaction involving digital content delivered at the electronic device, and
 - providing the commercial entity with information associated with the commercial transaction.
- 25 28. The method of claim 27 in which the token comprises a card with a magnetic stripe.
29. The method of claim 27 in which the token serves as a payment mechanism.
30. The method of claim 27 in which the token serves as a discount or promotional device.

31. The method of claim 27 in which the commercial entity comprises a retailer.
32. The method of claim 28 in which the information is associated with a payment to the commercial entity of a percentage of the commercial transaction.
33. The method of claim 28 in which the information reflects the user and the user's interaction with the electronic device.
5
34. The method of claim 28 in which the electronic device is located at a commercial entity that is a competitor with the commercial entity with which the user is affiliated.
35. The method of claim 28 in which the affiliation comprises membership in a group sponsored by the commercial entity.
10
36. A method comprising
providing to a user a token that can be read wirelessly from a self-service electronic device that is accessible to the public, the token containing information about the user, the token containing information associated with use of the electronic device by the user, and
15
- at the electronic device, reading the token and controlling the user's use of the electronic device based on the information contained on the token.
37. The method of claim 36 in which the token is readable by RF signaling.
38. The method of claim 36 in which the self-service electronic device dispenses digital content for value in response to interaction with the user.
20
39. The method of claim 36 in which the information contained on the token relates to at least one of user identification, payment information, and preferences of the user with respect to interaction with the electronic device.
40. A method comprising
in connection with a public performance, distributing to users attending the
25 performance tokens that include electronically readable information, and
at a self-service electronic device that is accessible to the public in the vicinity of the performance, receiving the tokens and dispensing to the users, digital content associated with the performance.

41. The method of claim 40 in which the public performance comprises a music concert.
42. The method of claim 40 in which the tokens comprise admission tickets for the performance.
- 5 43. The method of claim 40 in which the electronically readable information on each of the tokens identifies the user.
44. The method of claim 40 in which the digital content is a recording of the performance.
45. The method of claim 40 in which the digital content is a recording of another 10 performance associated with the performance being attended.
46. The method of claim 40 in which the dispensing of digital content is done directly to the user at the electronic device.
47. The method of claim 40 in which the dispensing of digital content is done to a location from which the user can later access the digital content through a communication 15 network.
48. The method of claim 40 in which the dispensing of digital content is done to a third party by an electronic message.
49. The method of claim 48 in which the dispensing of digital content to the third party is done for a fee or as part of a promotional arrangement.
- 20 50. Apparatus comprising
 - a housing adapted for mounting in a publicly accessible location,
 - a processor in the housing configured to provide a user interface that enables a user to select digital content to be received,
 - a communication port adapted to connect the processor to a communications
- 25 network to carry information about the delivery of the digital content between the housing and a central server, and
 - a downloading port connected to the processor and adapted to couple to a hand-held storage device and to enable the selected digital content to be downloaded to the hand-held storage device,

the user interface being customized to the user's preferences based in part on information stored in the central server.

51. The apparatus of claim 50 wherein the digital content is performable or executable from the hand-held storage device.

5 52. The apparatus of claim 50 wherein the digital content comprises at least one of music, speech, video, an electronic book, news, or software.

53. The apparatus of claim 50 wherein the hand-held storage device includes a non-moving storage module.

54. The apparatus of claim 50 wherein the hand-held memory device includes a high-speed solid-state flash memory card.

10 55. The apparatus of claim 50 wherein the communications network comprises a private network.

56. The apparatus of claim 50 in which the user interface includes a touch sensitive display.

15 57. The apparatus of claim 50 in which the publicly accessible location includes streets, buildings, stores, shopping malls, transportation hubs, or parks.

58. The apparatus of claim 50 wherein the processor is configured to obtain the digital content from the central server via the communications network, the central server being configured to manage distribution of the digital content.

20 59. The apparatus of claim 58 wherein the central server is connected to a database system storing the digital content.

60. The apparatus of claim 58 wherein the central server is configured to record all transactions.

61. The digital content teller of claim 58 wherein the central server determines promotions for each user based on a transaction history of the user.

25 62. The apparatus of claim 58 wherein the central server can be accessed by an open consortium.

63. The apparatus of claim 62 wherein the open consortium includes system operators, content providers, advertisers, retailers, property management companies, consumer electronics manufacturers, brand advertisers, player manufacturers, or banks.
64. The apparatus of claim 50 wherein the processor is configured to determine the most popular digital content distributed to users.
 - 5
65. The apparatus of claim 64 further comprising a local storage device adapted to cache the most popular digital content.
66. The apparatus of claim 64 wherein the processor obtains the digital content from the local storage device.
- 10 67. The apparatus of claim 50 further comprising an uploading port configured to upload digital content from the hand-held device.
68. The apparatus of claim 50 further comprising a second slot configured to allow the user to swipe an identifiable device or card for login or purchase purposes.
69. A method of distributing digital content comprising
 - 15 accepting a hand-held device inserted into a downloading port by a user; enabling a user to select digital content; and downloading the digital content based on the user's selection onto the hand-held device from which the digital content can be performed
70. The method of claim 69 wherein the digital content is performable or executable
 - 20 on the hand-held device.
71. The method of claim 69 wherein the digital content comprises at least one of music, speech, video, electronic book, news, games, and software.
72. The method of claim 69 wherein the hand-held device includes a non-moving storage module.
- 25 73. The method of claim 69 wherein the hand-held device includes a high-speed solid-state flash memory card.
74. The method of claim 69 wherein the communications network comprises the Internet.

75. The method of claim 69 wherein the public areas include streets, buildings, stores, shopping malls, transportation hubs, and parks.
76. The method of claim 69 wherein the downloading includes obtaining the digital content from a central server via a communications network, the central server being configured to manage distribution of the digital content.
77. The method of claim 76 wherein the central server is connected to a database system storing the digital content.
78. The method of claim 76 wherein the central server is configured to record all transactions.
79. The method of claim 76 wherein the central server determines promotions for each user based on a transaction history of the user.
80. The method of claim 76 wherein the central server can be accessed by an open consortium.
81. The method of claim 80 wherein the open consortium includes system operators, content providers, advertisers, retailers, player manufacturers, or banks.
82. The method of claim 69 further comprising determining the most popular digital content distributed from the digital content teller.
83. The method of claim 69 wherein the digital content teller comprises a local storage device caching the most popular digital content.
84. The method of claim 83 wherein the downloading includes obtaining the most popular digital content from the local storage device.
85. The method of claim 69 further comprising uploading digital content from the hand-held device to the digital content teller.

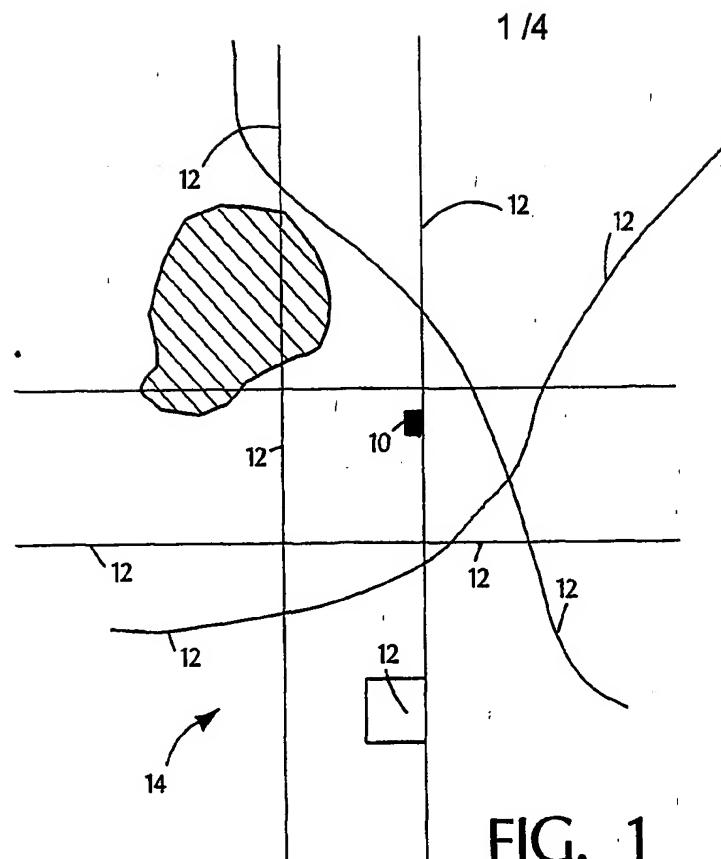


FIG. 1

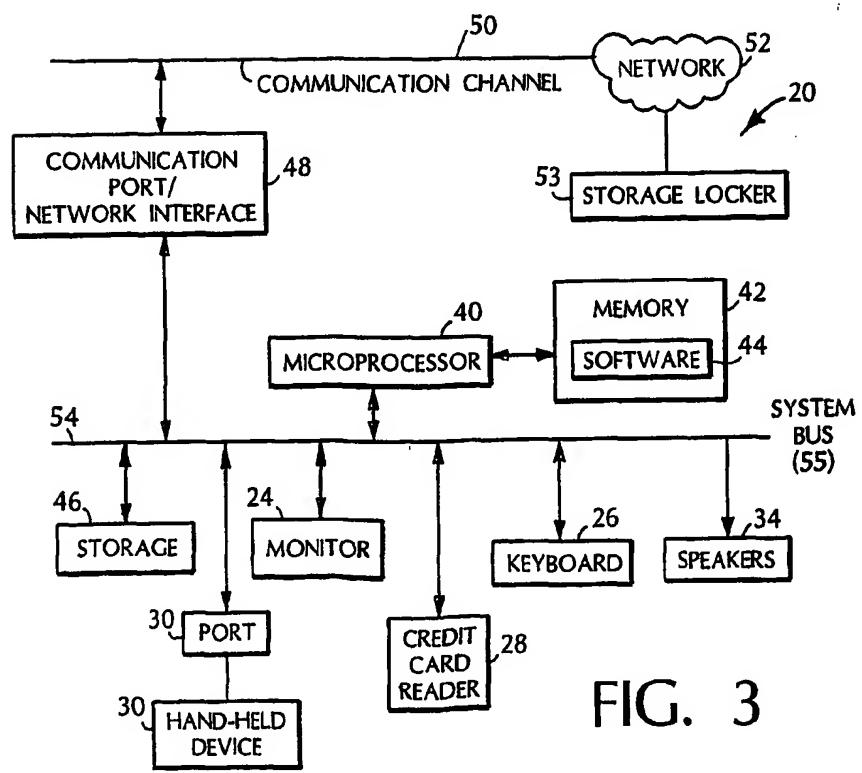


FIG. 3

2/ 4

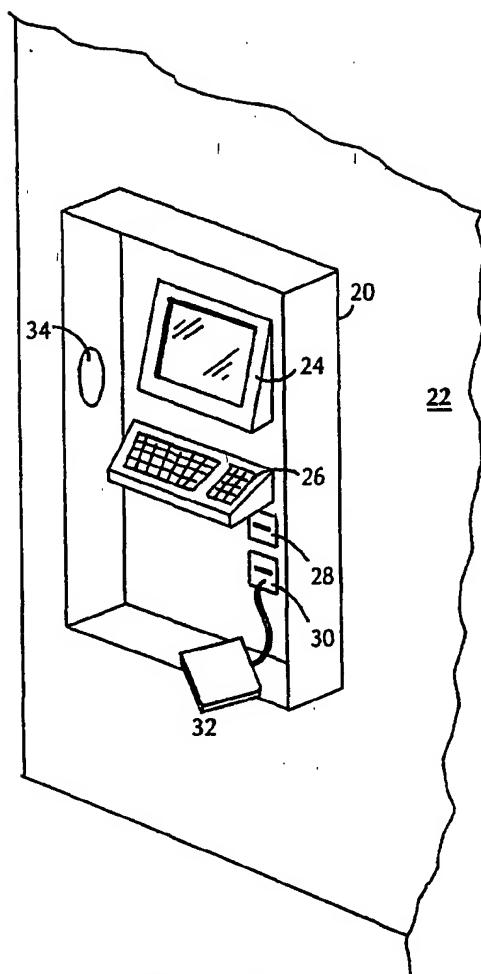


FIG. 2

3/4

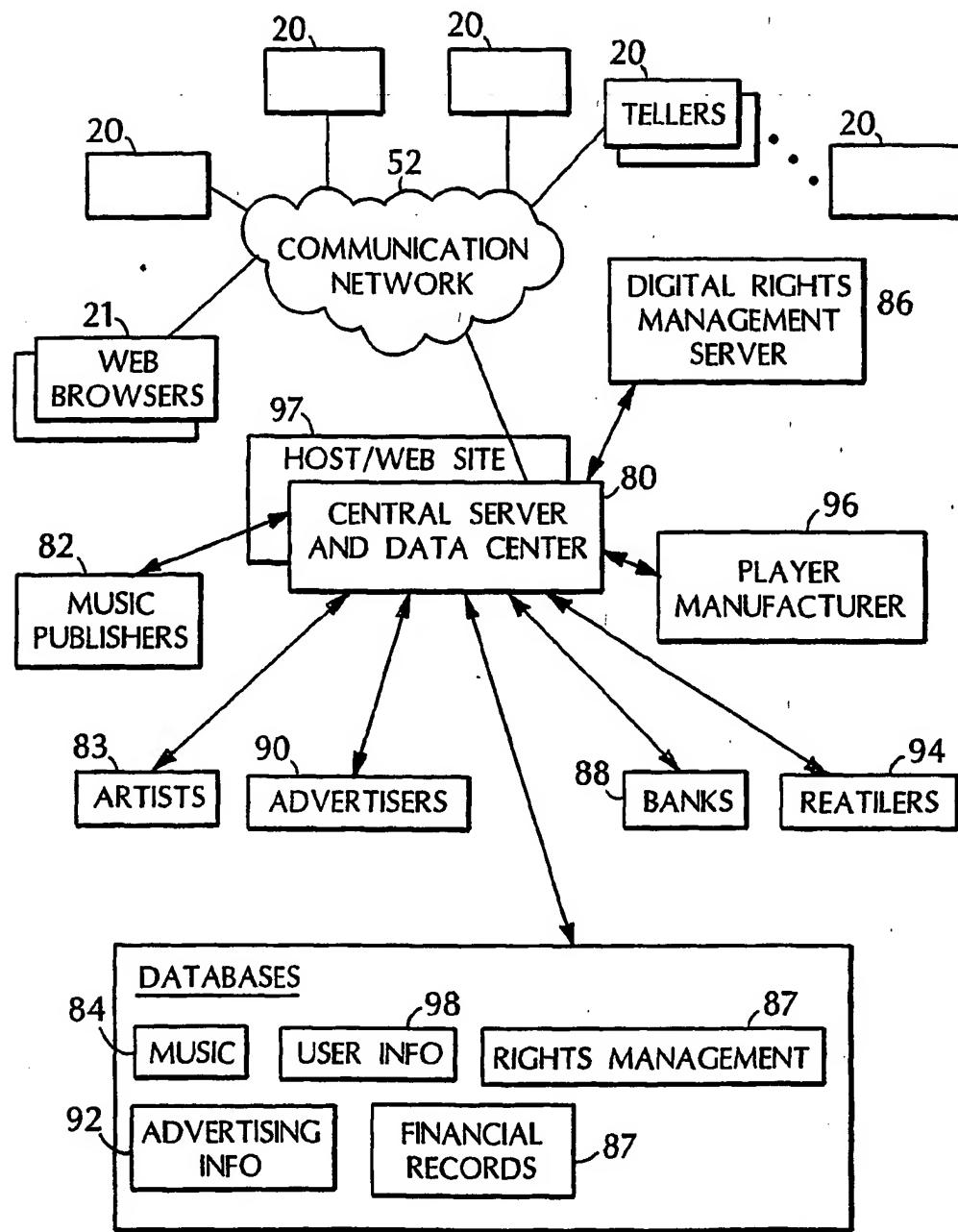


FIG. 4

4/4

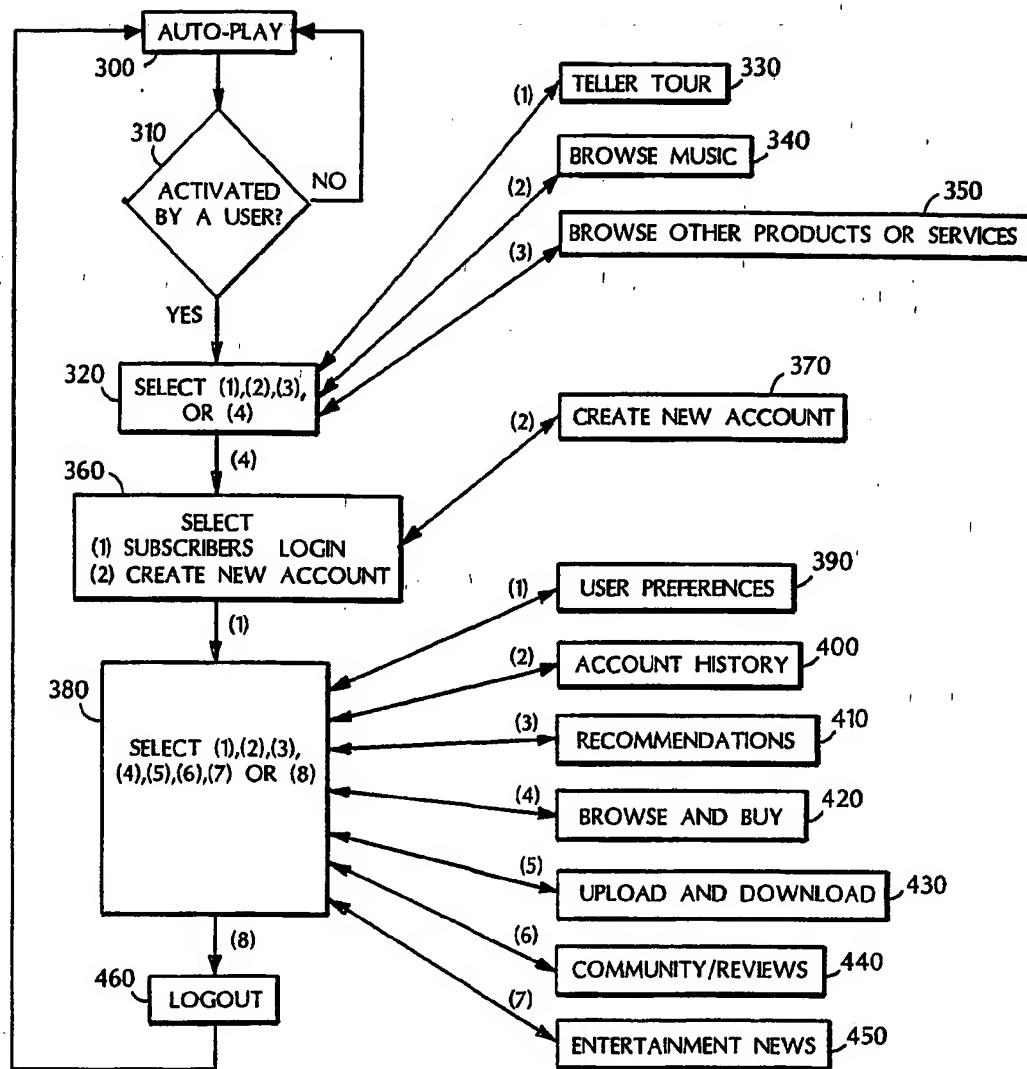


FIG. 5